

Headquarters U.S. Air Force

Integrity - Service - Excellence

Fitness for the War Fighter



LISA SCHMIDT, Maj, USAF, NC
Chief, Health Promotion Operations

Worldwide First Sergeant Conference
19 August 2003
Las Vegas, NV



Overview

- **Commander-Driven Physical Training Programs**
- **Testing Risks**
- **Body Composition**
- **Personnel Actions**
- **What's next**



Commander-Driven Physical Fitness Training

- **Foundation for AF Fitness Program**
- **Duty-time physical fitness training program**
 - **Fitness required as part of the job**
 - **Minimum 3 days / week with 30 min aerobic training and a strength training component**
- **Unit commander implements program tailored to mission needs**
 - **Group physical fitness training vs individual-paced**
 - **Physical Activity Readiness Questionnaire (PAR-Q)**
- **HAWC staff reviews / approves unit fitness programs for safety and effectiveness**



Fitness Testing Risks

- **39 known deaths resulted from fitness test (run) in other Services, 1996-99**
- **Submaximal bike test introduced in AF 1992 to motivate members to exercise and provide a safe assessment**
 - **No fatalities from bike test over past 10 years**
- **Run option must mitigate risk**
 - **Use science-based risk screening to identify members as low / moderate / high risk for heart disease**



1.5 Mile Run

~~Option~~

- Commonly used run distance to evaluate aerobic fitness
- Correlated to bike test score (VO_2 max)
- Provides test option that is familiar to members
- Require medical clearance to classify risk for heart disease
 - Incorporate with periodic health assessment
 - Automate results to unit commander
- For members classified as low risk or cleared by provider to run



Fitness Evaluation: Impact of New Standards*

Gender	% Fail (quarterly assessment) Health-based Standard
Female (n=421)	37% (n=158)
Male (n=2297)	58% (n=1345)
Total (n=2718)	56% (n=1503)

*Preliminary data gathered to date on WARFIT at FE Warren using aggregate fitness assessment scores (includes cycle ergometry, body fat measurement, and muscular fitness assessments)

- Unable to compare predicted failures to sister services due to different age groupings and large range of VO2 scores correlating to run times (30th-60th percentiles among Navy run times)
- No data available to predict pass/fail rate on any run distance; anticipate slightly better outcomes

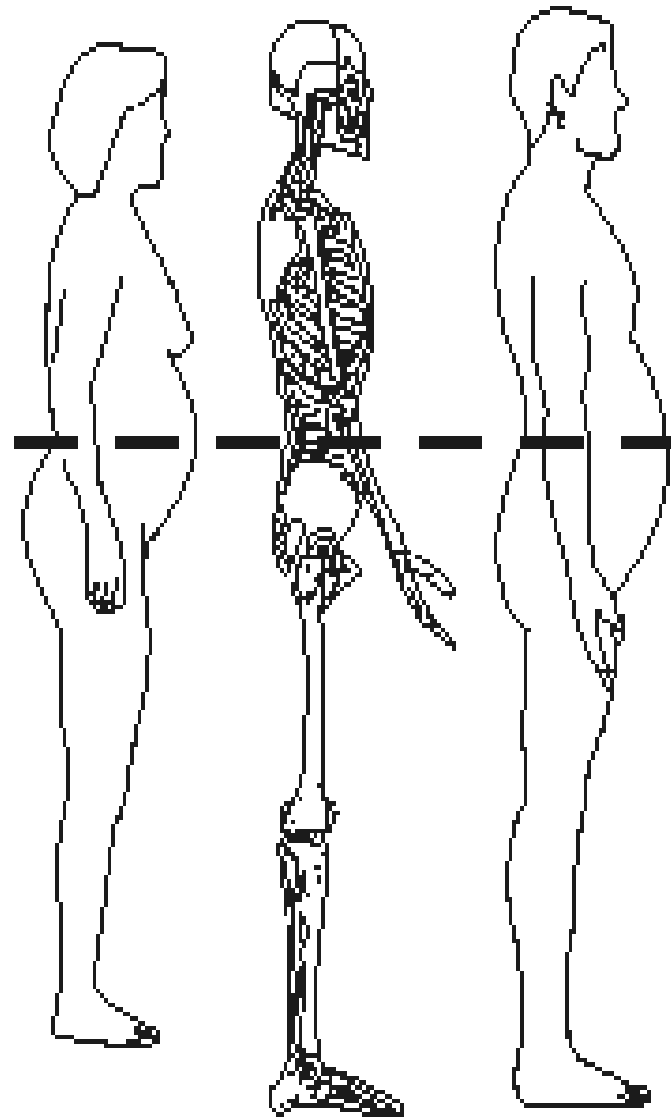


Proposed Abdominal Circumference

- Replace maximum allowable weight and 2-B site body fat taping procedure with a single abdominal circumference measurement
 - Independent predictor of health risk; greater correlation to health risk than body fat
 - Easy to administer...less chance for error
 - Members can easily track their progress
 - Age- and height-independent
- Eliminates subjective professional appearance
- Recommend DoD waiver request to eliminate body fat measurement

Waist Circumference Measurement

To measure waist circumference, locate the upper hip bone and the top of the right iliac crest. Place a measuring tape in a horizontal plane around the abdomen at the level of the iliac crest. Before reading the tape measure, ensure that the tape is snug, but does not compress the skin, and is parallel to the floor. The measurement is made at the end of a normal expiration.



Measuring-Tape Position for Waist
(Abdominal) Circumference in Adults



BODY FAT VS ABDOMINAL CIRCUMFERENCE

			Body Fat Measurement >26%		
N= 2126	Require body fat measureme nt	Body Fat Measureme nt > 26%	AC >40"	AC 35.5 - 39.5"	AC <_35"
BMI \geq 27.5 (body fat measurement required by DoD)	581	111	86	25	0
BMI <27.5 (body fat measurement not required by DoD)	1545	14	7	7	0

AC = Abdominal Circumference



Combine Fitness and Weight / Body Fat Program

- **Merges parallel programs to achieve optimal health**
- **Four fitness test components:**
 - **Aerobic assessment (50%)**
 - **Body composition (30%)**
 - **Pushups (10%)**
 - **Crunches (10%)**
- **Composite score based on evidence-based health risk**
 - **0-100 point scale**
 - **Provides fitness continuum; not a pass / fail**
 - **Score is scale based (gender / age neutral) for equal comparison of fitness level**



Composite Scoring

- **Members categorized based on composite score:**
 - **Excellent** (90-100 points)
 - **Good** (75-89.9 points)
 - Exercise 3 times / week, retest in one year
 - **Marginal** (70-74.9 points)
 - Exercise 3 times / week, retest in 6 months
 - Education on low-score component(s)
 - **Poor** (0-69 points)
 - Monitored exercise 4-5 times / week, retest 90 days
 - Education on exercise / diet / life skills
- **Risk stratification facilitates tailored education and intervention**

Aerobic Fitness			Body Composition		Muscle Fitness			
1.5-Mile Run Time (min.)	VO ₂ (ml/kg/min) Submaximal Estimates	Component Points	Abdominal Circumference (inches)	Component Points	1 minute Push-up (#Reps)	Component Points	1 minute Crunch (#Reps)	Component Points
<10:24	>50	50.00	<32.5	30.00	>40	10.00	>47	10.00
10:24	50	50.00	32.50	27.00	40	10.00	47	10.00
10:25-10:36	49	47.50	33.00	26.10	39	9.75	45-46	9.50
10:37-10:54	48	45.00	33.50	25.20	38	9.50	43-44	9.00
10:55-11:24	46-47	43.50	34.00	24.30	37	9.25	41-42	8.75
11:25-11:54	44-45	42.00	34.50	23.40	36	9.00	39-40	8.50
11:55-12:30	42-43	40.50	35.00	22.50	33-35	8.75	37-38	8.25
12:31-13:12	40-41	39.00	35.50	22.35	31-32	8.50	35-36	8.00
13:13-13:36	39	37.50	36.00	22.20	28-30	8.25	33-34	7.75
13:37-14:24	37-38	36.00	36.50	22.05	26-27	8.00	31-32	7.50
14:25-15:18	35-36	34.00	37.00	21.90	23-25	7.75	29-30	7.40
15:19-15:48	34	32.00	37.50	21.75	21-22	7.50	27-28	7.30
15:49-16:24	33	30.00	38.00	21.60	18-20	7.40	26	7.20
16:25-16:54	32	27.00	38.50	21.45	16-17	7.30	24-25	7.10
16:55-17:36	31	24.00	39.00	21.30	14-15	7.20	22-23	7.00
17:37-18:12	30	21.00	39.50	21.25	12-13	7.10	20-21	6.00
18:13-18:54	29	18.00	40.00	21.00	10-11	7.00	19	4.00
18:55-19:42	28	15.00	40.50	18.00	8-9	6.00	17-18	2.00
19:43-20:36	27	12.00	41.00	15.00	7	5.00	<17	0.00
20:37-21:30	26	9.00	41.50	12.00	6	4.00		
21:31-22:30	25	6.00	42.00	9.00	4-5	3.00		
22:31-23:36	24	3.00	42.50	6.00	3	2.00		
>23:36	<24	0.00	43.00	3.00	1-2	1.00		
			>43.00	0.00	<1	0.00		



Recommended Personnel Actions for Poor Fit Members

- **Commander flexibility**
 - **Reenlistment**
 - **Tech training / professional military education**
 - **Reassignment**
- **Commander may consider adverse administrative action if member remains in poor fit category for 6 months**
- **Administrative separation - last resort**
 - **Convene a multi-disciplinary panel**
 - **Consider if member remains poor fit for 12 months**
 - **Consider if member receives 4 poor fit scores in 2-year period**
- **Eliminate monthly weigh-ins with administrative actions**
- **Eliminate double standard between officer / enlisted**



Fitness. . .What's Next

- **Marketing plan**
 - **Standardized e-mails, presentations and briefing targeted for leaders and members**
- **Develop guidelines for unit fitness programs**
- **Develop testing software**
- **Medical clearances / profiles**
- **Draft, coordinate and publish AFI 40-501 by Jan 04**



Fitness. . .What Can You Do?

- **Recommend establishing a Base Fitness Implementation Team (FPM, Fitness Center Director, nutrition, provider, FSgt, others)**
 - **Unit PT programs**
 - **Medical Clearances**
 - **Scheduling**
 - **Remedial Programs**



Questions!
Comments!